

## REMARKS

### Claim Amendments:

The claims have been amended to more particularly describe the present invention. Claims 2-4 have been cancelled without prejudice to or disclaimer of the subject matter therein, and Claims 9-13 have been added. Support for Claim 1, part (a) and Claim 10 is found in the specification on page 7, line 17 to page 8, line 7. Support for Claim 1, part (b) and Claim 9 is found on page 8, lines 13-19. Support for Claim 1, part (c) is found on page 8, lines 20-22. Support for Claim 11 is found on page 3, lines 20-22; page 8, lines 7-11 and page 10, line 13. Support for Claims 12 and 13 is found on page 8, lines 7-11.

### Restriction Requirement:

The Examiner has requested that the non-elected claims be cancelled. Claims 5-8 have been cancelled without prejudice to or disclaimer of the subject matter therein. Applicants expressly reserve the right to pursue the subject matter of Claims 5-8 in a divisional application without the need to file a terminal disclaimer.

### Formal Drawings:

The Examiner has required that formal drawings be submitted in connection with this response. Enclosed herewith are formal drawings for submission in the above-identified application.

### Rejection of Claims 1-4 Under 35 U.S.C. § 101:

The Examiner has rejected Claims 1-4 under 35 U.S.C. § 101, contending that these claims are directed to non-statutory subject matter.

Applicants have adopted the Examiner's suggestion and have amended all pending claims to recite an "isolated DNA molecule...", which is believed to overcome the rejection. The Examiner is respectfully requested to withdraw the rejection of Claims 1-4 under 35 U.S.C. § 101.

Objection to the Specification and Rejection of Claims 1-4 Under 35 U.S.C. § 112, First Paragraph:

The Examiner has objected to the specification and rejected Claims 1-4 under 35 U.S.C. § 112, first paragraph, on the basis of written description. The Examiner asserts that no description is provided as to what structurally constitutes nucleotide sequences comprising unknown and undescribed promoter sequences with undescribed mutations in the repressor region of the 5-HT1A gene. The Examiner suggests that the claims should be limited to an isolated DNA molecule consisting of SEQ ID NO:1 and having the C-G substitution mutation at position 2422.

In response to this rejection, Applicants have adopted the Examiner's suggestion in part and have further amended Claim 1 in a manner that is believed to meet the requirements of 35 U.S.C. § 112, first paragraph. Specifically, Claim 1 has been amended to recite the DNA sequence consisting of SEQ ID NO:1 with the C-G mutation at position 2422 as suggested by the Examiner, but also to recite fragments of this sequence that are at least 10 nucleotides in length and that contain the position 2422 mutation, as well as sequences that are fully complementary thereto. Fragments of SEQ ID NO:1 (and complements thereof) containing the recited mutation and of a length suitable for use as probes, primers or other therapeutic sequences (i.e., at least 10 nucleotides) are described in the specification and are clearly contemplated for use, for example, in diagnostic and prognostic assays (see, e.g., page 8, line 13 to page 9, line 27) and in various other therapeutic protocols and screening assays (see page 11, lines 6-24). One of skill in the art will readily see that Applicants were in full possession of the invention as presently claimed, and Applicants submit that they are entitled to claim protection for these fragments of the larger sequence.

Claims 12-13 (as well as Claim 11) are directed to sequences within the HT1A receptor repressor region including the palindromic sequence of the HT1A promoter that includes the polymorphic site at position 2422 and that are also particularly useful as probes or reagents for diagnostic, prognostic, or screening assays. Again, Applicants submit that the sequences as presently claimed can be clearly envisioned by those of skill in the art given the present specification and meet the requirements of 35 U.S.C. § 112, first paragraph.

In view of the foregoing amendments and remarks, the Examiner is respectfully requested to withdraw the rejection of Claims 1-4 under 35 U.S.C. § 112, first paragraph.

Rejection of Claims 2-4 Under 35 U.S.C. § 112, Second Paragraph:

The Examiner has rejected Claims 2-4 under 35 U.S.C. § 112, second paragraph, contending that these claims are indefinite because no reference sequence is recited.

This rejection is believed to be overcome in view of the amendments to Claim 1 which adds the reference sequence of SEQ ID NO:1. The Examiner is respectfully requested to withdraw the rejection of Claims 1-4 under 35 U.S.C. § 112, second paragraph.

Rejection of Claims 1-4 Under 35 U.S.C. § 102(b):

The Examiner has rejected Claims 1-4 under 35 U.S.C. § 102(b), contending that these claims are anticipated by Parks et al., which allegedly teaches human and murine 5-HT1A gene promoters containing multiple base pair changes/deletions.

Applicants submit that Claim 1 has been amended to more particularly describe the present invention. Parks et al. do not teach or suggest the presently claimed DNA sequence. Therefore, the Examiner is respectfully requested to withdraw the rejection of Claims 1-4 under 35 U.S.C. § 102(b).

Applicants have attempted to respond to all of the Examiner's concerns as set forth in the April 19 Office Action, and submit that the claims are in a condition for allowance.. In the event that the Examiner has any additional concerns regarding the claims, the below-named agent can be contacted at (303) 863-9700 to expedite prosecution.

Respectfully submitted,

SHERIDAN ROSS P.C.

By: Angela Dallas Sebor  
Angela Dallas Sebor  
Registration No. 42,460  
1560 Broadway, Suite 1200  
Denver, CO 80202-5141  
(303) 863-9700

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